

Q-PSKH1S

$n_d = 1.592550$

$n_e = 1.594633$

$v_d = 67.86$

$v_e = 67.50$

| | |
|----------------|--------|
| Glass code (d) | 593679 |
| Glass code (e) | 595675 |

| Spectral l. | Refractive idx |
|-------------|----------------|
| 2.058 | 1.57281 |
| 1.970 | 1.57370 |
| 1.530 | 1.57784 |
| 1.129 | 1.58164 |
| 1.064 | 1.58235 |
| t | 1.58295 |
| s | 1.58528 |
| A' | 1.586903 |
| r | 1.588401 |
| C | 1.589901 |
| C' | 1.590322 |
| He-Ne | 1.590715 |
| D | 1.592472 |
| d | 1.592550 |
| e | 1.594633 |
| F | 1.598633 |
| F' | 1.599131 |
| g | 1.603384 |
| h | 1.607317 |
| 0.389 | 1.609711 |
| i | - |

| Coef. disp. form. (pwr ser.) | |
|------------------------------|-----------------|
| A0 | 2.50007622E+00 |
| A1 | -6.71624527E-03 |
| A2 | -5.14442840E-05 |
| A3 | 1.28098993E-02 |
| A4 | 1.58900364E-04 |
| A5 | 6.45646017E-07 |
| A6 | 1.36642151E-07 |
| A7 | 0.00000000E+00 |
| A8 | 0.00000000E+00 |

| Partial dispersion | |
|--------------------|----------|
| F-C | 0.008732 |
| F'-C' | 0.008809 |
| C-t | 0.006952 |
| C-A' | 0.002998 |
| d-C | 0.002649 |
| e-C | 0.004732 |
| g-d | 0.010834 |
| g-F | 0.004751 |
| h-g | 0.003933 |
| i-g | - |
| C'-t | 0.007373 |
| e-C' | 0.004311 |
| F'-e | 0.004498 |
| i-F' | - |

| Relative partial dispersion | |
|-----------------------------|--------|
| C-t/F-C | 0.7962 |
| C-A'/F-C | 0.3433 |
| d-C/F-C | 0.3034 |
| e-C/F-C | 0.5419 |
| g-d/F-C | 1.2407 |
| g-F/F-C | 0.5441 |
| h-g/F-C | 0.4504 |
| i-g/F-C | - |
| C'-t/F'-C' | 0.8370 |
| e-C'/F'-C' | 0.4894 |
| F'-e/F'-C' | 0.5106 |
| i-F'/F'-C' | - |

| Deviation of relative partial disp. | |
|-------------------------------------|---------|
| ΔPdC | -0.0045 |
| ΔPgF | 0.0136 |

| Internal CC (80%/5%) | |
|----------------------|--|
| 344/274 | |

| Color Code (80%/5%) | |
|---------------------|--|
| 355/275 | |

| CCI | |
|-----|------|
| B | 0.00 |
| G | 0.20 |
| R | 0.18 |

| Thermal properties | |
|------------------------|-------|
| CTE(-30,70) [1E-7/°C] | 114 |
| CTE(100,300) [1E-7/°C] | 132 |
| Tg [°C] | 564 |
| At [°C] | 591 |
| Ht condct. [W/m·K] | 0.663 |
| Sp. heat [kJ/kg·K] | 0.522 |
| diffus. [1E-6 m2/sec] | 0.309 |

| Chemical properties [class] | |
|-----------------------------|---|
| Acid res. (surface) | 3 |
| Alkaline detergent res. | 3 |
| Climate resistance | 1 |
| Water res. (powder) | 1 |
| Acid res. (powder) | 1 |

| Mechanical properties | |
|--------------------------------------|---------|
| Knoop hardness | 290 (3) |
| Abrasion hardness | 540 |
| Young's mod. [GPa] | 76.0 |
| Shear mod. [GPa] | 29.3 |
| Poisson's ratio | 0.298 |
| Stress optical coef. [1E-5 nm/cm/Pa] | 0.60 |

| Internal trans. (10mm) | |
|------------------------|--------|
| λ [nm] | τ |
| 280 | 0.06 |
| 290 | 0.10 |
| 300 | 0.18 |
| 310 | 0.29 |
| 320 | 0.45 |
| 330 | 0.61 |
| 340 | 0.76 |
| 350 | 0.86 |
| 360 | 0.927 |
| 370 | 0.962 |
| 380 | 0.980 |
| 390 | 0.989 |
| 400 | 0.992 |
| 420 | 0.994 |
| 440 | 0.994 |
| 460 | 0.995 |
| 480 | 0.996 |
| 500 | 0.998 |
| 550 | 0.999 |
| 600 | 0.998 |
| 650 | 0.998 |
| 700 | 0.997 |
| 800 | 0.996 |
| 900 | 0.996 |
| 1000 | 0.997 |
| 1200 | 0.998 |
| 1400 | 0.999 |
| 1600 | 0.999 |
| 1800 | 0.997 |
| 2000 | 0.993 |
| 2200 | 0.989 |
| 2400 | 0.983 |

| Specific gravity | |
|------------------|--|
| 4.1 | |

| Relative $\Delta n / \Delta T$ [1E-6/°C] | | | | | | | | | | | | | | | | |
|--|-------|------|------|------|------|------|------|-------|------|------|------|------|------|------|-------|------|
| Temp. [°C] | 1.083 | t | s | A' | r | C | C' | He-Ne | d | e | F | F' | g | h | 0.389 | |
| 80 to 90(ref.) | -6.1 | -6.1 | -6.0 | -5.9 | -5.9 | -5.8 | -5.8 | -5.8 | -5.7 | -5.7 | -5.6 | -5.4 | -5.3 | -5.0 | -4.7 | -4.5 |
| 60 to 80(ref.) | -6.1 | -6.0 | -5.9 | -5.9 | -5.8 | -5.8 | -5.8 | -5.7 | -5.7 | -5.5 | -5.3 | -5.3 | -5.0 | -4.7 | -4.5 | -4.5 |
| 40 to 60 | -6.0 | -6.0 | -5.9 | -5.8 | -5.8 | -5.7 | -5.7 | -5.7 | -5.6 | -5.5 | -5.3 | -5.2 | -5.0 | -4.7 | -4.5 | -4.5 |
| 20 to 40 | -5.9 | -5.9 | -5.8 | -5.7 | -5.7 | -5.6 | -5.6 | -5.6 | -5.5 | -5.4 | -5.2 | -5.1 | -4.9 | -4.6 | -4.4 | -4.4 |
| 0 to 20 | -5.7 | -5.7 | -5.6 | -5.6 | -5.5 | -5.5 | -5.4 | -5.4 | -5.3 | -5.2 | -5.0 | -5.0 | -4.8 | -4.5 | -4.3 | -4.3 |
| -20 to 0 | -5.5 | -5.5 | -5.4 | -5.4 | -5.3 | -5.3 | -5.3 | -5.2 | -5.2 | -5.1 | -4.9 | -4.8 | -4.6 | -4.4 | -4.2 | -4.2 |
| -40 to -20 | -5.3 | -5.3 | -5.2 | -5.1 | -5.1 | -5.0 | -5.0 | -5.0 | -4.9 | -4.8 | -4.6 | -4.6 | -4.4 | -4.1 | -4.0 | -4.0 |
| -60 to -40(ref.) | -4.9 | -4.9 | -4.8 | -4.8 | -4.7 | -4.7 | -4.7 | -4.6 | -4.6 | -4.5 | -4.3 | -4.3 | -4.0 | -3.8 | -3.7 | -3.7 |
| -70 to -60(ref.) | -4.6 | -4.6 | -4.5 | -4.5 | -4.4 | -4.3 | -4.3 | -4.3 | -4.2 | -4.1 | -4.0 | -3.9 | -3.7 | -3.5 | -3.4 | -3.4 |

| Absolute $\Delta n / \Delta T$ [1E-6/°C] | | | | | | | | | | | | | | | | |
|--|-------|------|------|------|------|------|------|-------|------|------|------|------|------|------|-------|------|
| Temp. [°C] | 1.083 | t | s | A' | r | C | C' | He-Ne | d | e | F | F' | g | h | 0.389 | |
| 80 to 90 | -7.1 | -7.1 | -7.0 | -6.9 | -6.9 | -6.8 | -6.8 | -6.8 | -6.7 | -6.6 | -6.4 | -6.3 | -6.1 | -5.8 | -5.6 | -5.6 |
| 60 to 80 | -7.1 | -7.1 | -7.0 | -7.0 | -6.9 | -6.9 | -6.8 | -6.8 | -6.7 | -6.6 | -6.4 | -6.4 | -6.1 | -5.9 | -5.7 | -5.7 |
| 40 to 60 | -7.2 | -7.2 | -7.1 | -7.0 | -7.0 | -6.9 | -6.9 | -6.9 | -6.8 | -6.7 | -6.5 | -6.5 | -6.2 | -6.0 | -5.8 | -5.8 |
| 20~40 | -7.2 | -7.2 | -7.2 | -7.1 | -7.0 | -7.0 | -7.0 | -7.0 | -6.9 | -6.8 | -6.6 | -6.6 | -6.3 | -6.1 | -5.9 | -5.9 |
| 0 to 20 | -7.3 | -7.3 | -7.2 | -7.2 | -7.1 | -7.0 | -7.0 | -7.0 | -6.9 | -6.8 | -6.7 | -6.6 | -6.4 | -6.2 | -6.0 | -6.0 |
| -20 to 0 | -7.4 | -7.3 | -7.3 | -7.2 | -7.2 | -7.1 | -7.1 | -7.1 | -7.0 | -6.9 | -6.7 | -6.7 | -6.5 | -6.3 | -6.1 | -6.1 |
| -40 to -20 | -7.4 | -7.4 | -7.3 | -7.3 | -7.2 | -7.2 | -7.2 | -7.1 | -7.1 | -7.0 | -6.8 | -6.8 | -6.6 | -6.4 | -6.2 | -6.2 |
| -60 to -40 | -7.5 | -7.5 | -7.4 | -7.3 | -7.3 | -7.2 | -7.2 | -7.2 | -7.1 | -7.1 | -6.9 | -6.9 | -6.7 | -6.5 | -6.3 | -6.3 |
| -70 to -60 | -7.5 | -7.5 | -7.4 | -7.4 | -7.3 | -7.3 | -7.3 | -7.3 | -7.2 | -7.1 | -7.0 | -6.9 | -6.7 | -6.5 | -6.4 | -6.4 |

| Coef. disp. form. (frac. eq.) (ref.) | |
|--------------------------------------|----------------|
| P1 | 1.07610379E-01 |
| Q1 | 1.08426062E+02 |
| P2 | 3.92191498E-02 |
| Q2 | 1.71487165E-02 |
| P3 | 2.94126331E-01 |
| Q3 | 4.17899731E-03 |

| Fitting error of disp. form. σ [1E-6] | | |
|--|---------|----------|
| | Visible | Infrared |
| Power ser. eq. | 0.4 | 6.9 |
| Frac. eq. (ref.) | 0.6 | 7.3 |

| | |
|----------------------|---|
| Prod. Freq. (A to D) | A |
|----------------------|---|

| Similar glass type | | | |
|--------------------|---|--------|---|
| OHARA | - | HOYA | - |
| C.D.G.M | - | SCHOTT | - |

| | |
|----------|---------------|
| 2019-4-1 | Transmittance |
| 2015-4-1 | Color Code |
| 2009-9-1 | 1st edition |